CLAIMS:

1. A semiconductor device comprising an optoelectronic semiconductor element comprising a semiconductor body a surface of which has an optically active part and a non-optically active part in which are located electrical connection areas of the optoelectronic semiconductor element, above which optically active part of the surface of the semiconductor body a body is located comprising an optical component, characterized in that the body comprises an optically transparent foil in which the optical component is formed that is located on the optically active part of the surface of the semiconductor body and is connected to it.

2. A semiconductor device as claimed in claim 1, characterized in that the foil is connected to the surface of the semiconductor body by means of an optically transparent adhesive layer.

3. A semiconductor device as claimed in claim 1 or 2, characterized in that a further body is attached to the semiconductor body, which further body comprises a further optical component above the active part of the surface of the semiconductor body which further optical component is separated from the foil by a hollow space.

4. A semiconductor device as claimed in claim 3, characterized in that the further body comprises a cylindrical part of which one end is glued to the foil and of which the other end is provided with the further optical component.

5. A semiconductor device as claimed in claim 1, 2, 3 or 4, characterized in that the optoelectronic semiconductor element is fixed to an electrically insulating flexible foil of which one side is provided with a conductor pattern, the electrical connection areas are connected to the conductor pattern by means of wire links and the wire links are enveloped in an insulating sheathing.

6. A semiconductor device as claimed in claim 1, 2, 3, 4, 5 or 6, characterized in that the optoelectronic semiconductor element comprises a solid-state image sensor, the component comprises a lens and the further component comprises a lens and/or a filter opaque to infrared radiation.

7. A method of manufacturing a semiconductor device comprising an optoelectronic semiconductor element with a semiconductor body of which one surface has an optically active part and an optically non-active part within which there are electrical connection areas of the optoelectronic semiconductor element, above which optically active part of the surface of the semiconductor body a body is installed comprising an optical component, characterized in that for the body is chosen an optically transparent foil in which the optical component is formed that is installed on the optically active part of the surface of the semiconductor body.

8. A method as claimed in claim 7, characterized in that the optical component is fixed to the surface of the semiconductor body by means of an optically transparent adhesive layer.

9. A method as claimed in claim 7 or 8, characterized in that the optical component is formed in the foil by pressing the foil with a profiled die and preferably while at the same time heating is applied.

10. A method as claimed in claim 7, 8 or 9, characterized in that a further body that is provided with a further optical component is fixed to the semiconductor body so that the further optical component is located above the optically transparent foil and is separated from it by a hollow space.

11. A method as claimed in claim 10, characterized in that for the further body a cylindrical part is selected of which one end is glued to the foil and of which the other end is provided with the further optical component.

12. A method as claimed in claim 7, 8, 9, 10 or 11, characterized in that the optoelectronic semiconductor element is fixed to an electrically insulating flexible foil of which one side is provided with a conductor pattern, the electrical connection areas are

connected to the conductor pattern by means of wire links and the wire links are enveloped in an insulating sheathing.

13. A method as claimed in any one of the claims 7, 8, 9, 10, 11 or 12, characterized in that a carrier body comprises a number of strip-like or rectangular optically transparent foils which receive the adhesive layer on the side turned away from the carrier body is moved above a wafer that contains a number of semiconductor elements and, after the carrier body with the foils has been aligned relative to the wafer of semiconductor elements, the foils are glued to the semiconductor elements by pressing the carrier body onto the wafer after which the carrier body is removed.

14. A method as claimed in claim 13, characterized in that once the wafer has received the optically transparent foils and once the optical component has been formed therein, a further body that is provided with a further optical component is attached to each of the semiconductor elements in the wafer so that the further component is located above the active part of the surface of the semiconductor element and is separated from the foil by a hollow space.

15. A method as claimed in claim 14, characterized in that the wafer is fixed with a side facing the surface of the semiconductor elements to a membrane that is located inside a ring and is split up into separate semiconductor elements by sawing after the further optical component has been installed.

16. A method as claimed in claim 15, characterized in that individual semiconductor elements are fixed to a strip-like electrically insulating flexible foil of which one side is provided with a conductor pattern, the electrical connections are linked to the conductor pattern by wire links, the wire links are enveloped in a sheathing after which the strip-like flexible foil is split up into parts each one of which comprising a semiconductor element.

17. A method as claimed in one of the claims 13, 14, 15 or 16, characterized in that the foils are made by gluing an optically transparent film onto a UV transparent carrier film by means of a glue that can be detached by UV radiation, forming strip-like or

rectangular foils in the optically transparent film by cutting by means of a laser beam, after which the redundant parts of the film can be partly pressed out of it or completely removed.

18. A method as claimed in claim 17, characterized in that the carrier body is formed by the UV transparent carrier film and in that this is removed by exposure to UV light after the redundant parts of the film have been removed and after the foils have been fixed to the wafer.

19. A method as claimed in claim 17, characterized in that the carrier body is formed by a plate-like pair of vacuum tweezers with which the UV transparent carrier film provided with foils is picked up after which the UV transparent carrier film is removed by UV exposure, subsequent to which the redundant parts of the film are torn off the carrier body.